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How future trends may affect international cooperation in planning education: the case of Spain and Latin America

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Abstract: Despite the benefits for exchanging experiences among planners at the global scale, the strong context dependency of urban planning creates in many instances significant difficulties to extrapolate experiences from one geographical context to the other. If progress is to be achieved in international cooperation programmes, differences and commonalities should be assessed before launching any academic initiative. In that respect, this paper makes a brief foresight exercise on how future trends and challenges, which may affect the urban planning field, should be taken into consideration according to two different contexts: Spain and Latin America. A segmentation matrix is used to expose and discuss the different effects of future trends on both contexts. Some tentative conclusions are drawn for the development of international educational programmes.

Keywords: Urban planning education, international cooperation, trend analysis, futures studies

Drivers and barriers for international cooperation in urban planning

Efforts for international exchanges and cooperation initiatives in the realm of urban planning education have historically encountered as many drivers as barriers for its effective implementation. Recently, several scholars have provided insightful views about pros and cons of international education (Frank et al, 2014; Friedmann, 2005; Kunzmann & Yuan, 2014; Kunzmann, 2004; Sykes et al, 2015).

Nowadays, there are various **drivers** that promote international cooperation among universities. Within the European Union, a growing number of economic and academic incentives are offered for establishing exchange and collaborative programmes among state members. At the global level, emerging economies are increasingly demanding an offering of advanced postgraduate studies in planning, which creates, in turn, a growing competition for attracting those students at Western universities. In addition, increasing costs of R&D stimulate the need for joint cooperation among researchers from different countries. Finally, higher mobility of students and professors make a higher demand for exchange and collaborative agreements among universities.

Nevertheless, there are also significant **barriers** that turn international cooperation difficult. Above all, urban planning education shows a strong dependency of local contexts which makes international exchanges of experiences difficult to undertake. In fact, planning is an institutionally embedded practice, based on a legal framework intended to respond to specific socio-cultural needs. Moreover, climatic and physical differences inevitably influence local planning patterns and designs. Likewise, there are differing national perceptions of how urban planning should be taught. In sum, it should not surprise us to recognize that there is a North-South and East-West divide in planning education.

Despite the explicit benefits for exchanging experiences among planners at the global scale, the strong context dependency of urban planning creates in many instances significant difficulties to extrapolate experiences from one geographical context to the other. If progress is to be achieved in international cooperation programmes, differences and commonalities should be assessed before launching any academic initiative. With that purpose in mind, this paper undertakes a brief foresight exercise on how future trends, which may affect the urban planning field in the coming years, should be taken into consideration for designing and implementing educational programmes based on international cooperation. Trend analysis outcomes are applied to the case of educational cooperation between Spain and Latin America.

As a general disclaimer, it must be stated that this paper is just based on exploratory work. No ad-hoc research and field work has been done to test the validity of the foresight exercise. Further assessment of the tools and results presented hereby should be carried out in future studies.

Future trends that may affect urban planning

Trend analysis constitutes one of the favourite tools used by foresight practitioners when working together with stakeholders (FOREN, 2001; Fernández Güell, 2011). The main purpose of this analysis is to scan as many relevant societal, environmental, economic, technological, and political trends that might affect the urban planning field in the future.

In a foresight exercise undertaken in June 2013 with a group of doctoral students and young researchers at the Technical University of Madrid (UPM), more than 50 trends which foreseeable would affect cities were identified and assessed. As a sample of that exercise, it has been chosen a set of relevant megatrends which recurrently appear in recent foresight documents (Boden et al, 2010; EC, 2011; Fernández Güell, 2013; OPTI, 2009; PwC, 2011; UN-Habitat, 2011). Those trends are structured in five categories: societal, economic, technological, environmental, and governance. Implications of those change factors on the city are briefly mentioned so as to give an idea of their impact importance.

A) Societal change factors. UN projections estimate that in the year 2050 nearly 70% of the world population will live in cities, compared to the present 50%; this will demand more planning for minimizing environmental impacts. A diminishing fertility rate together with the extension of life expectancy will increase the ageing of urban populations, requiring cities to enlarge services and facilities for the elderly. More heterogeneous family structures will demand new housing typologies. Massive incorporation of women in the labour force will require new community services directed to families with dependent members. The appearance of new forms of social exclusion in large cities will require more preventive policies for assuring social and cultural integration as well as for avoiding spatial exclusion. Emergence of new urban life styles will influence the way citizens consume goods and services and also how they use urban spaces, thus requiring planners to understand those behavioural patterns. A higher educational level of urban populations will demand more innovative public services and more transparent decision-making processes. Increased social use of new IC technologies will promote the development of new participation channels.

B) Economic change factors. Continuous progress in the globalization process will create development opportunities for cities with a competitive economic base, while it will accelerate the decline of others. The consolidation of emergent economies will generate new urban markets with strong purchasing power, creating business opportunities for developed economies. As a response to the internationalization of manufacturing industries, cities will specialise in specific parts of the chain value production if they wish to keep their economic base alive. Innovative companies will not only locate according to physical facilities, but they will also consider territorial intangible assets such as social capital. A knowledge-based economy will force cities to improve their technology transfer mechanisms and adapt their technological spaces. Communication and information technologies will transform distribution channels, which in turn will force to redesign logistics centres, shopping centres and small shops.

C) Technological change factors. Large technological and financial resources will be invested in developing of new energy sources, which will require the redesign and structural adaptation of a large number of buildings. In order to improve quality of life and minimize global warming, we will be impelled to develop new technologies for reducing CO_2 emissions, which will require drastic changes in transport modes and in industrial processes. Innovations in big data, open data and cloud computing will impulse smart initiatives in almost every city as well as the development of new participation channels. Nanotechnology and advanced materials will provide new performance qualities to city infrastructures and buildings. Innovations in the car industry will reduce emissions, will increase energy efficiency and will improve urban mobility. A new generation of airplanes will diminish environmental impacts in the surrounding urban areas close to airports. The extension of high-speed train networks will affect the structure of large urban systems.

D) Environmental change factors. The worsening of climate change will affect many cities around the globe, forcing them to improve energy efficiency, to protect against sea flooding and to guide urban design accordingly. Need to reduce CO_2 emissions will impulse the development of non-motorized transport and the extension of pedestrian areas. Increasing environmental risks and natural hazards will affect citizens' welfare, who will demand stricter planning controls to make cities more resilient. Water scarcity in drier climates will require cities to rethink urbanization patterns in order to reduce water consumption. Demand for higher quality of life will increase ecological footprint. Growing

environmental concern among citizens will force urban stakeholders to implement sustainability criteria in all planning processes.

E) Governance change factors. The trend toward a more participative democracy will strengthen the social fabric of cities, which in turn will require to change the urban decision making process. Increasing political decentralization will improve supply of public services at the local level. More effective collaboration and coordination among public administrations will increase city efficiency, which will require new organizational and operational schemes of the planning process. Higher public-private cooperation will increase a city's financial strength. Progress toward integrated sectoral policies at the local level will increase a city's strategic capability. Innovation in the public sector will not only mean the incorporation of new technologies to speed up operational processes, but also the implementation of new management systems that will improve critical thinking, strategic planning and decision making.

Though limited, these trends provide a plausible sample of the numerous and complex challenges that most cities in the world will face in the next 10 to 20 years. Some of those changes are already taking place and some others will foreseeable happen in the near future. Moreover, unexpected additional challenges may emerge as a consequence of unforeseen interconnections among the previous change factors. In brief, uncertainty will be one of the key issues to take into consideration when planning a city in the 21st century.

Trend impact assessment

The future trends identified in the prior section will not only affect urban planning processes, but they will most probably condition cooperation initiatives in planning education among different countries or regional blocks. In other words, foreseeable change factors may show different impacts on urban planning education according to diverse physical, cultural and political contexts. If this assumption is correct, it would be useful to assess trends before designing an international educational programme.

Accordingly, an assessment tool is presented hereby in the form of a segmentation matrix, made up of two variables: (a) impact level on urban planning; and (b) effect on geographical contexts. Impact level assesses the foreseeable incidence of future trends on planning processes according to two levels: high and low. The second variable assesses if a future trend will have a significant effect either on a global context or rather on a local context.

A total of 35 trends were assessed according to those two variables (Figure 1). Assessment was performed by the author based on a previous foresight exercise about the future evolution of cities (Fernández Güell & Collado, 2014).

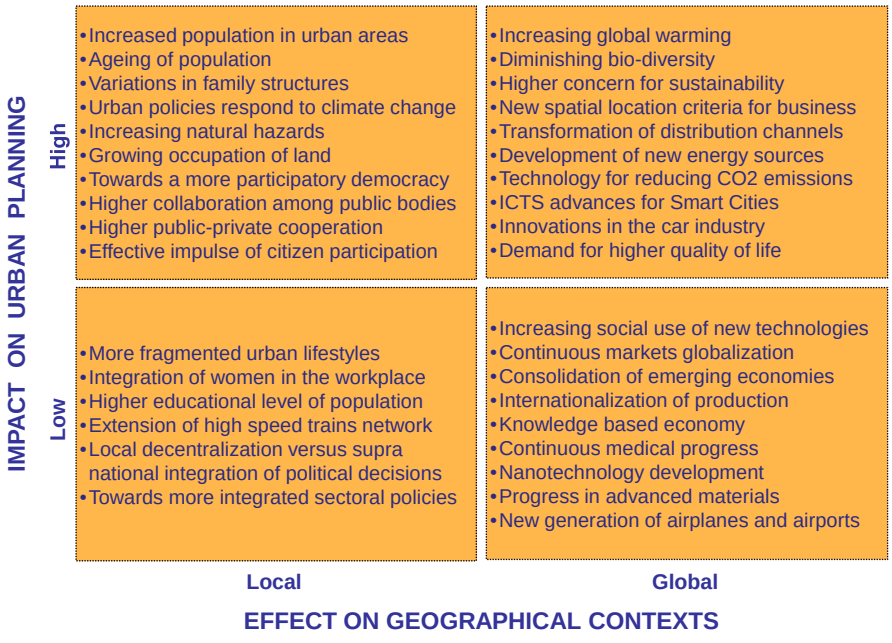

Fig. 1: Future trends segmentation matrix
Source: Author's elaboration

Once each change factor was assessed and placed in the matrix, four major segments were clearly identified with relation to international cooperation in the urban planning educational field (Figure 2):

- *Segment A: Global critical topics*. It corresponds to trends with high impact on cities and common effect on both contexts. Trends located in this position may nurture urban planning curricula in both places without much need for cultural adjustment.
- *Segment B: Global secondary topics*. It includes trends with low impact level on cities, but common effect on both contexts. These trends will probably not constitute the core of planning curricula, but their discussion will provide subtle analysis on secondary issues that may affect urban development. This kind of trends may provide content for specialization courses in thematic planning.
- *Segment C: Local critical topics*. It encompasses trends with high impact level on cities, but which show different effects on each context due to physical, cultural, legal or economic disparities. Trends located in this quadrant will provide key content for differentiating courses and teaching materials oriented to local audiences.
- *Segment D: Local secondary topics*. It corresponds to trends with low impact on cities and differentiated effects on both contexts. Most of the times, these trends will be of little relevance for designing international curricula, though they may be used to show the complexity and diversity of local planning.

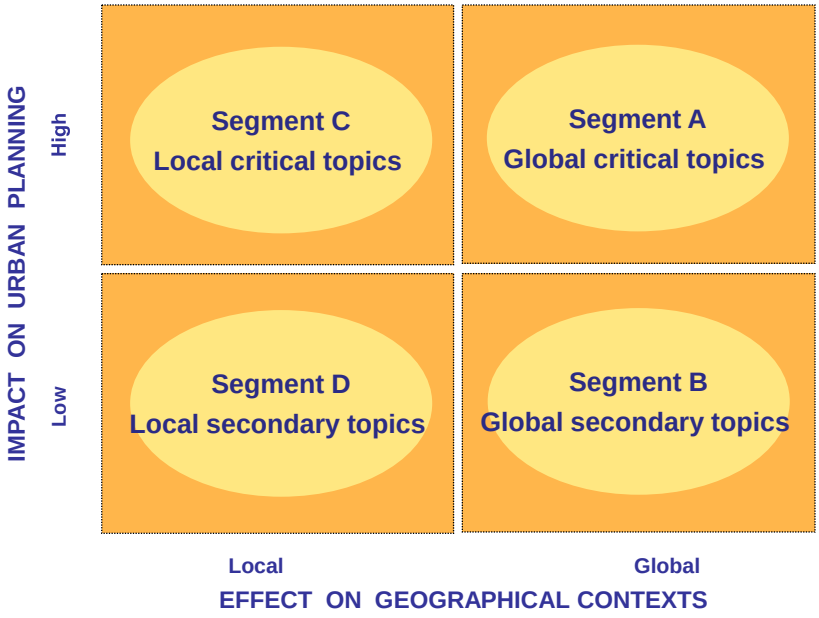

Fig. 2: Interpretation of matrix positions
Source: Author's elaboration

Application to the case of cooperation between Spain and Latin America

To further explore the practical application of this foresight exercise, it was chosen the potential for future cooperation in the urban planning field between Spain and Latin America. The two selected contexts show both commonalities and differences regarding urban culture and planning practices which help to illustrate the proposed exercise. In this example of international cooperation, language is not an issue since its common to both parts, but socio-cultural contexts show significant differences which in some circumstances may prove difficult for professional communication and exchanges. Additional disparities appear because urban growth in Spain is stagnating, while most Latin American

countries still experience considerable new urban development. Finally, contextual rationalities and decision making processes regarding planning are often strikingly different.

Spain is a European country with marked regional differences. Since its entrance in the European Union, Spain has invested heavily in infrastructures and its cities show an equivalent urbanization level and quality of life level equivalent to the most advanced EU countries. Urban planning is undertaken under a well-established legal framework and an ample array of planning tools. In general terms, the urban fabric of Spanish cities is mostly compact and dense, though urban sprawl is evident in metropolitan areas and tourist destinations. In the last few decades, Spain has acted as a lighthouse for planning education for most Latin American countries. Nowadays, urban growth in Spain is stagnating and some land will be probably disqualified for urban uses.

Within **Latin America**, Spanish speaking countries constitute a large regional block with striking physical and economic differences, but linked by a common language and cultural heritage. Most Latin American cities have still a long way to walk before reaching urban standards equivalent to European cities. The practice of urban planning is not solidly established because of an incipient legal framework and lack of effective implementation tools. Apart from the old colonial town centres developed under gridiron patterns, the rest of the urban areas show the dominance of dispersed urbanization patterns. Most Latin American countries still experience considerable new urban development.

Acknowledging both differences and similarities between Spain and Latin America, three types of programmes that could provide adequate response to future needs in planning education are identified (Figure 3).

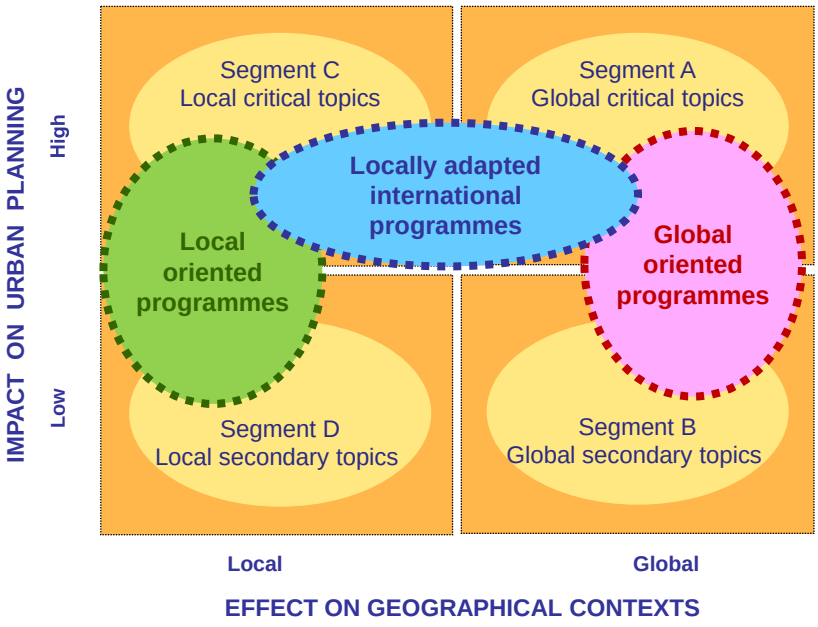

Fig. 3: Typology of educational planning programmes
Source: Author's elaboration

1) *Global oriented programmes*. They would include all range of global topics, either critical or specialised, but with disregard to local topics. In this kind, lectures would be given by recognised experts in global sectoral issues and students from different nationalities would adapt on a personal basis general knowledge to their local contexts. These programmes would probably be given in a global city or a global university in a centralised manner. Specialised post graduate programmes, particularly doctoral and postdoctoral studies, will dominate this scene. Economies of scale for preparing courses and teaching materials would be significant in this case.

2) *Locally adapted international programmes*. They would cover global topics adapted to the local context. In this form, lectures would be co-authored by global and local experts, so that

teaching materials would be properly adapted to local planning needs. These programmes would be given in peripheral countries in a partially decentralised manner with a significant support of ICTs. Preferred offerings may be related to master studies. Adapting international curricula to local needs may have a considerable cost.

3) *Local oriented programmes*. Though taking into consideration global topics, these programmes would focus primarily on local issues concerning urban planning. In this third variety, lectures would be given by local experts, who may or may not have studied abroad. Information and communication technologies could be used to approach distant municipalities which may be in need of improving the professional capabilities of their civil servants. Despite being local oriented, these programmes would benefit from international cooperation for drafting teaching materials and case studies. Under no circumstances, global analysis and foreign practices will provide plausible clues for the resolution of local challenges, which would require on-site research.

No doubt that these three types of programmes could be blended among them so as to generate a wider choice of planning curricula.

Conclusions for future international cooperation in planning education

Considering that this paper just presents an exploratory exercise on how foresight tools may enlighten opportunities for enhancing international cooperation in planning education, it is obvious that no rigorous findings or research evidences can be shown. Nevertheless, I cannot resist the temptation of sharing some general intuitions about the potential outcomes of this kind of exercises.

On the one hand, some canonical and preconceived conclusions easily arise. Firstly, identification of key global challenges should be considered in any type of international programme, so foresight techniques should be incorporated in planning curricula. Secondly, if local planning needs are to be considered by planning programmes, then local challenges should be differentiated and attended in a separate manner. Thirdly, an adequate mix of global and local challenges would probably strengthen most international programmes, so involvement of local academic staff will be critical. Fourthly, financial and technological resources will condition the implementation of an international programme, so a previous auditing of educational partners will be needed.

On the other hand, some questions emerge regarding the future of international cooperation. Firstly, will exclusively oriented global programmes be more prone to lucrative goals than locally adapted international programmes? Secondly, will student mobility be a prerequisite for a successful programme or will professor mobility be the key factor for international cooperation? Thirdly, will content providers of planning education be the same ones as in previous decades or we will see new players emerge in the coming years? Fourthly, will traditional dominance of global programmes be counterbalanced by more innovative local programmes? Fifthly, will be able to devise means to bridge the gap among different planning cultures and transcend the boundaries of distance and language?

Further exploration of this topic would require in-depth research and questioning to both schools and local recipients of planning programmes. However, whatever the outcome is of additional research, growing dynamism of the planning context will force schools to monitor carefully new trends and assess thoughtfully opportunities for international cooperation. Foresight should be considered a reliable companion in this undertaking.

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